Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Antire Creek

Water Body Segment at a Glance:

County:	St. Louis
Nearby City:	Eureka
Water Body ID:	2188
Impaired Length:	1.9 miles
Watershed Size:	9.8 square miles
Pollutant 1:	Bacteria
Source 1:	Urban runoff/Storm sewers
Pollutant 2:	pH
Source 2:	Unknown

State Map Showing Location of Watershed

Scheduled for TMDL development: 2014 for Bacteria and 2017 for pH

Description of the Problem

Designated beneficial uses of Antire Creek

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health (Fish Consumption)
- Whole Body Contact Recreation – Category B

Uses that are impaired

- Protection of Warm Water Aquatic Life
- Whole Body Contact Recreation – Category B

Standards that apply

- Missouri's Water Quality Standards at 10 CSR 20-7.031(4)(C) states that the *E. coli* bacteria count, measured as a geometric mean, shall not exceed 126 colonies per 100 milliliters of water (126 col/100 mL) for Category A and 206 col/100 mL for Category B waters during the recreational season. The recreational season is defined as being from April 1to October 31.
- The specific criteria for pH are found in 10 CSR 20-7.031(4)(E). Water contaminants shall not cause pH to be outside of the range of 6.5 to 9.0 standard pH units.

Background information and water quality data

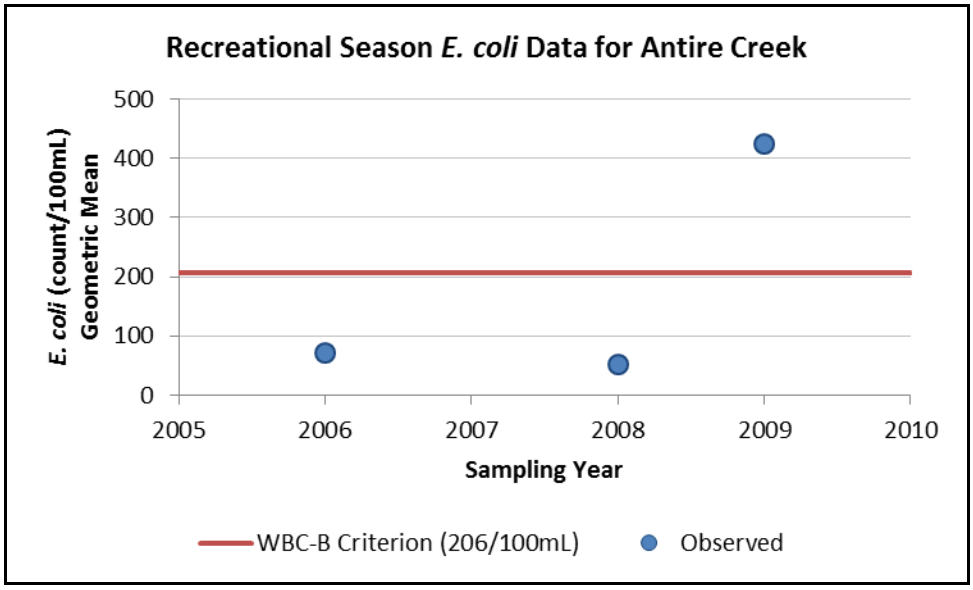
Antire Creek is a small stream near the St. Louis-Jefferson County boundary and is a tributary to the Meramec River. The stream is designated as Category B for the whole body contact recreation use, which means it has places deep enough for total immersion (i.e., swimming), but they may be on

private lands and are not designated as public swimming areas. Antire Creek is listed as impaired by bacteria and pH on the state's 2012 303(d) List of impaired waters, which was approved in whole by the U.S. Environmental Protection Agency on Nov. 13, 2012.

Bacteria Impairment

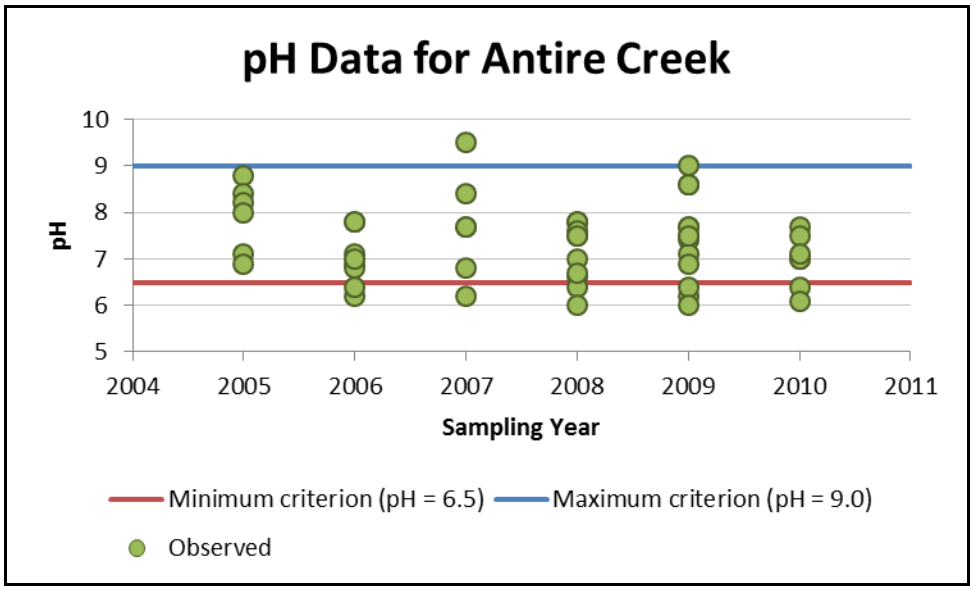
The department judges a stream to be impaired by bacteria if the water quality criterion for *E. coli* is exceeded in any of the last three years for which there is adequate data (minimum of five samples taken during the recreational season).

High counts of *E. coli* are an indication of fecal contamination and an increased risk of pathogen-induced illness to humans. *E. coli* are bacteria found in the intestines of warm-blooded animals and are used as indicators of the risk of waterborne disease from pathogenic (disease causing) bacteria or viruses. Missouri's whole body contact bacteria criteria are based on specific levels of risk of acute gastrointestinal illness. The level of risk correlating to the category B criterion is no more than 10 illnesses per 1,000 swimmers in fresh water (1 percent).

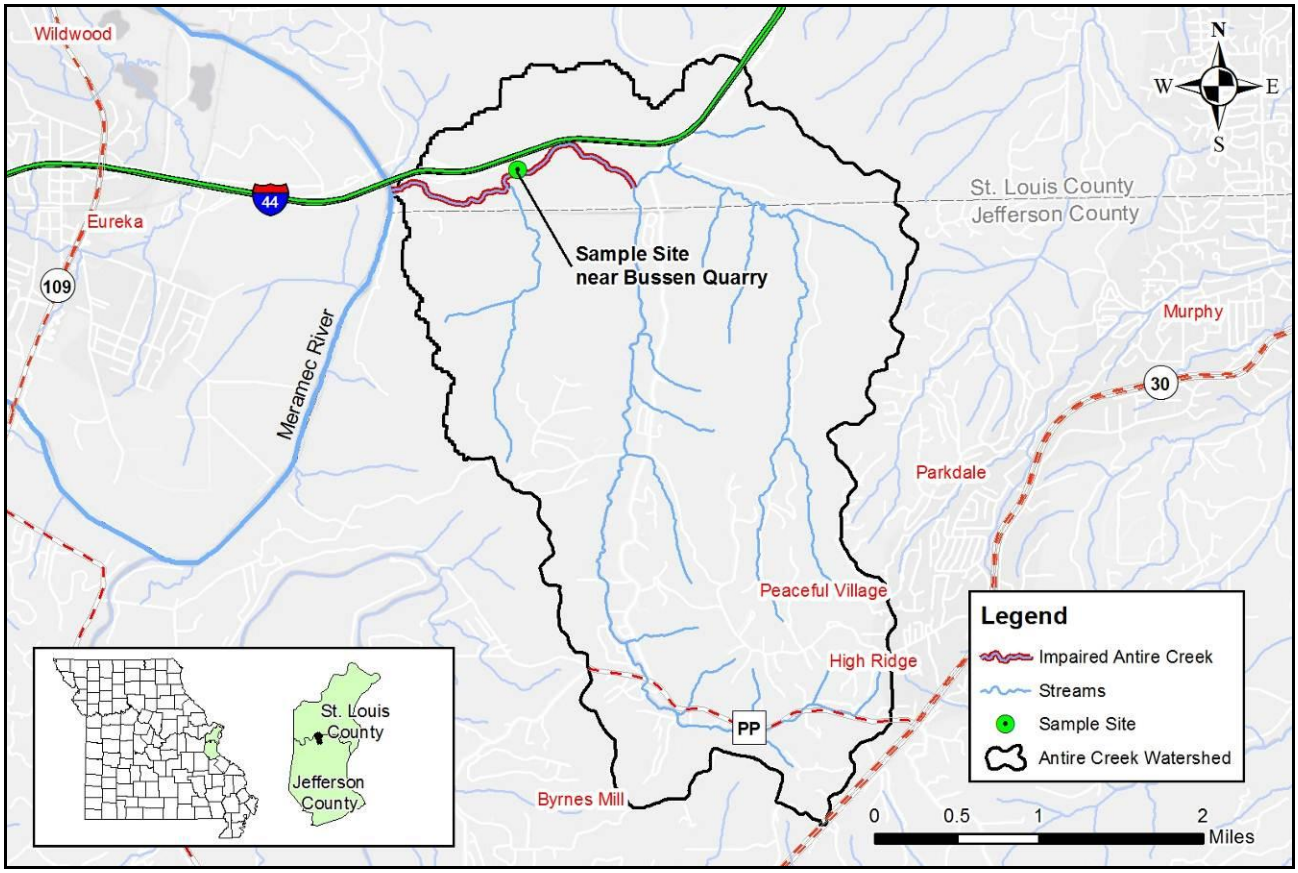


pH Impairment

For pH, a water body is assessed as impaired if more than 10 percent of available pH measurements violate the state's pH criteria. In Antire Creek, 10 of 50 pH measurements collected by the Metropolitan St. Louis Sewer District from 2005 to 2010 exceeded the pH water quality criteria. For this reason, Antire Creek is listed as impaired for pH.



Map Showing the Antire Creek Watershed and Sample Sites



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NOTE: The final Antire Creek TMDL will use the most recent, available data and information.

Created: 2/2013